CLAIMS

WHAT IS CLAIMED IS:

An automotive alternator comprising:

a shaft supported in a case so as to be capable of rotating;

a rotor housed in said case and comprising a plurality of magnetic poles fixed to said shaft, a field winding, and a fan fixed to at least one axial end of said magnetic poles; a stator fixed to said case so as to be positioned at an outer circumference of said rotor and comprising a core and a winding wound in said core, and provided with coil ends formed by bending back said winding at ends of said core;

a rectifier disposed in said case and comprising a rectifying element for rectifying an ac generated by said stator to a dc and a heat dissipating plate for dissipating heat generated by said rectifying element;

a regulator disposed in said case for adjusting a magnitude of the ac voltage generated by said stator;

a brush disposed in said case so as to advance and retreat in a radial direction of said rotor and one end thereof contacting said rotor to supply a field current to said field winding of said rotor;

a connector for mounting an external plug; and

said case containing a plurality of intake holes at a side where said fan of said rotor is mounted, and cooling air drawn in from said intake holes is bent in a centrifugal direction after cooling said rectifier to ventilate and cool said coil ends; wherein,

said regulator and said brush are disposed so as to overlap in an axial direction, and center lines of said brush, said regulator and said connector are disposed on an approximately same plane extending in a radial direction, said rectifier is disposed approximately line symmetrical to said same plane, and said plurality of intake holes are formed in said case at a

position corresponding to said rectifier.

2. An automotive alternator according to Claim 1 wherein:

said regulator and said brush are disposed approximately point symmetrical with said connector with said shaft as a center, and center lines of these three are disposed on an approximately same plane extending in a radial direction.

3. An automotive alternator according to Claim 1 wherein:

said connector is disposed at an approximately outer circumferential-side of said regulator and said brush, and center lines of said connector, said regulator and said brush are disposed on an approximately same plane extending in a radial direction.

4. An automotive alternator according to Claim 1 wherein:

said regulator and said brush are disposed so as to overlap in an axial direction, said connector is disposed so as to further overlap said regulator and said brush in an axial direction, and center lines of said regulator, said brush, and said connector are disposed on an approximately same plane extending in a radial direction.

5. An automotive alternator according to Claim 1 wherein:

a fixing means for fixing to said case is used for both said regulator and said rectifier.

6. An automotive alternator according to Claim 1 wherein:

said coil end does not substantially lap said fan in an axial direction and said cooling air produced by said fan ventilates an end portion of said coil end.

7. An automotive alternator according to Claim 1 wherein:

said coil end substantially laps said fan in an axial direction and said cooling air produced by said fan passes through and ventilates an interior of said coil end.